

CHAPTER VII: CANTILEVER LAUNCHES

A. General Description

Cantilever launches extend out over the water from the shore, sometimes appearing to float on the water. Their main supports are their anchors to the shoreline, which often include anchors that are partially submerged in water.

B. Materials

Frequently made of wood, with steel or wood supports

C. Design specifications/variations

- Anchor and frame must be built to accommodate weights of the launch, boats, and paddlers
- An engineer should be consulted to determine if a cantilever structure is the best option given the launch's level of use
- Elevated cantilever walkways, used as launches or connected to other launch structures, can provide access in environmentally sensitive areas while protecting riparian habitat and shoreline vegetation; see Alaska Fish and Game's website for more information: <http://www.sf.adfg.state.ak.us/sarr/restoration/techniques/walkways.cfm>

D. Advantages

- Have minimal environmental impact
- Suitable in a wide range of locations and shoreline configurations
- Can have removable deck sections or posts that may be removed seasonally
- Relatively inexpensive to construct

E. Disadvantages

- Cannot support excessive weight
- Treated wood can be hazardous to the environment ; alternatively, using alternative wood materials can be expensive
- May not last as long as a fixed or floating launch due to support and weight limitations

F. Case examples, designs, photos

1) Design for cantilever launch, Minnesota Division of State Parks

This cantilever launch is composed of deck sections and posts that can be removed seasonally. 2 ½" footing pipes with cross bolts in place are installed into the shore bottom until they are firm (18" to 24" below the water surface). 2" pipes are installed through metal deck brackets and into pipes, capped on upper threaded ends. Deck is leveled by set screws in brackets. Dock can be unbolted when screws are loosened and 2" pipes are removed. Dock sections can be removed entirely, while the footing pipes remain.

Diagram 7A: Plan, elevation, section, and bracket detail of cantilever launch

Design courtesy of Minnesota DNR

